

The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TADASHI ICHIDA

Appeal 2007-1827
Application 10/001,324
Technology Center 3600

Decided: August 29, 2007

Before TERRY J. OWENS, MURRIEL E. CRAWFORD, and JENNIFER D. BAHR, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellant appeals from a rejection of claims 1-7, 13-28, and 34-38.

Claims 8-12 and 29-33, which are all of the other pending claims, stand allowable.

THE INVENTION

The Appellant claims an apparatus and method wherein a transmission control unit is used in shifting a bicycle transmission. Claim 1 is illustrative:

1. An apparatus for controlling a first bicycle transmission and a second bicycle transmission which, in combination, sets a speed stage of the bicycle, comprising:

a transmission position communication path for communicating information indicating the operational position of the first transmission and the second transmission;

a transmission command communication path for communicating information for controlling the operation of the first transmission and the second transmission;

a shift command communication path for communicating electronic shift commands to select a speed stage of the bicycle;

a transmission control unit operatively coupled to the shift command communication path, to the transmission position communication path and to the transmission command communication path for receiving the shift commands and the information indicating the operational position of the first transmission and the second transmission and for generating the information for controlling the operation of the first transmission and the second transmission;

wherein, when the transmission control unit receives at least one shift command requesting a shift through N speed stages to a requested destination speed stage, where N

Appeal 2007-1827
Application 10/001,324

is an integer greater than one, the transmission control unit generates information for causing the first transmission and the second transmission in combination to move a total of M times to move to a different destination speed stage that has a gear ratio in close proximity to a gear ratio of the requested destination speed stage, where M is an integer less than N, without regard to whether or not the first transmission and the second transmission would be temporarily set in a speed stage outside a range between the origin speed stage and the requested destination speed stage when moving from the origin speed stage to the requested destination speed stage.

THE REFERENCES

Colbert	US 5,213,548	May 25, 1993
Browning	US 5,261,858	Nov. 16, 1993
Ethington	US 5,681,234	Oct. 28, 1997
Spencer	US 6,047,230	Apr. 4, 2000

THE REJECTIONS

The claims stand rejected under 35 U.S.C. § 103 as follows: claims 1-7, 13, 18, 20-28 and 34 over Ethington in view of Browning; claims 14-16 and 35-37 over Ethington in view of Browning and Colbert; and claims 17, 19, and 38 over Ethington in view of Browning and Spencer.

OPINION

We reverse the aforementioned rejections and, under 37 C.F.R. § 41.50(b), enter a new ground of rejection of claims 1-7, 13-28, and 34-38.

Appeal 2007-1827
Application 10/001,324

The Appellant's independent claim 1 requires that "the transmission control unit generates information for causing the first transmission and the second transmission in combination to move a total of M times to move to a different destination speed stage that has a gear ratio in close proximity to a gear ratio of the requested destination speed stage, where M is an integer less than N". Similar claim requirements appear in the other independent claims (20 and 22). Each of the independent claims requires that the transmission control unit generates information "without regard to whether or not the first transmission and the second transmission would be temporarily set in a speed stage outside a range between the origin speed stage and the requested destination speed stage when moving from the origin speed stage to the requested destination speed stage."

For a disclosure of the Appellant's recited generation of information by the transmission control unit the Examiner relies upon Browning (Answer 4-5). Browning shifts front and rear bicycle gear assemblies one at a time (col. 5, col. 37-44). To improve cyclist comfort Browning avoids what Browning calls an "illegal gear shift", i.e., "a shift from a first gear to a second gear such that the bicycle must transition through a third gear that is not between the first and second gears to get from the first to the second gear" (col. 5, ll. 12-34). The shift from gear 3 to gear 2 in Browning's table 1 (col. 5, ll. 17-30) is illegal because 1) if the front gear assembly is shifted down one gear (from 30 to 38) the bicycle will be in gear ratio 38/23 which is 5th gear, outside the range of gears 2 and 3, and 2) if the rear gear assembly is shifted down one gear (from 23 to 32) the bicycle will be in gear ratio 30/32, which is 1st gear, also outside the range of gears 2 and 3.

Appeal 2007-1827
Application 10/001,324

However, the shift from gear 3 to gear 1 is legal because if the front gear assembly is not shifted but the rear gear assembly is shifted down one gear (from 23 to 32) the bicycle will be in gear ratio 30/32 which is 1st gear, not outside the range of gears 1 to 3. That shift from gear 3 to gear 1 is through two speed stages.

Therefore, the Appellant's "N" for that shift is two. Because the shift from gear 3 to gear 1 requires only one sprocket position movement the Appellant's "M" for that shift is one. So, M is less than N as required by the Appellant's claims. As indicated above, however, Browning makes that shift with regard to whether or not the front or rear transmission is temporarily set in a speed stage outside the range between gears 3 and 2. Consequently, Browning does not meet the "without regard to whether or not the first transmission and the second transmission would be temporarily set in a speed stage outside a range between the origin speed stage and the requested destination speed stage when moving from the origin speed stage to the requested destination speed stage" limitation in the Appellant's independent claims.

The Examiner argues (Answer 5):

It would have been obvious to one having ordinary skill in the art at the time the invention was made to disregard the operation of both the first transmission and the second transmission being set temporarily in a speed stage outside of a range between the origin speed stage and the destination speed stage when moving from the origin speed stage to the requested destination speed stage, since it has been held that the omission of a step or an element and its function is obvious if the function is not desired.

The Examiner does not explain why one of ordinary skill in the art would not have desired the function of Browning's illegal gear concept for improving cyclist

Appeal 2007-1827
Application 10/001,324

comfort (col. 5, ll. 12-13). The Examiner merely relies upon a *per se* rule of obviousness. As stated by the Federal Circuit in *In re Ochiai*, 71 F.3d 1565, 1572, 37 USPQ2d 1127, 1133 (Fed. Cir. 1995), “reliance on *per se* rules of obviousness is legally incorrect and must cease.”

The Examiner argues that “[t]he elimination of the step of the first and second transmissions being set temporarily in a speed stage outside of a range between the origin and destination speed stages may not be desired in all environments” (Answer 13-14). The Examiner, however, does not provide evidence or technical reasoning in support of that argument. The Examiner’s mere speculation is not sufficient for establishing a *prima facie* case of obviousness.

For the above reasons we reverse the Examiner’s rejections.¹

New ground of rejection

Under 37 C.F.R. § 41.50(b) we enter the following new ground of rejection.

Claims 1-7, 13-28, and 34-38 are rejected under 35 U.S.C. § 112, first paragraph, written description requirement.

A specification complies with the 35 U.S.C. § 112, first paragraph, written description requirement if it conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, the inventor was in possession of the invention. *See Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991); *In re Kaslow*, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983); *In re Edwards*, 568 F.2d 1349, 1351-52, 196 USPQ 465,

¹ The Examiner does not rely upon Ethington, Colbert or Spencer for any disclosure that remedies the above-discussed deficiency in Browning.

Appeal 2007-1827
Application 10/001,324

467 (CCPA 1978); *In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976).

The claim limitation “without regard to whether or not the first transmission and the second transmission would be temporarily set in a speed stage outside a range between the origin speed stage and the requested destination speed stage when moving from the origin speed stage to the requested destination speed stage” was added in an amendment (filed Jan. 24, 2005) wherein the Appellant did not point out where adequate written descriptive support for that limitation appears in the Appellant’s original disclosure. Nor do we find where the Appellant’s original disclosure would have conveyed with reasonable clarity to those skilled in the art that, as of the Appellant’s filing date, the Appellant was in possession of the subject matter set forth in that limitation. Accordingly, claims 1-7, 13-28, and 34-38 are rejected under 35 U.S.C. § 112, first paragraph, written description requirement.

DECISION

The rejections under 35 U.S.C. § 103 of claims 1-7, 13, 18, 20-28, and 34 over Ethington in view of Browning, claims 14-16 and 35-37 over Ethington in view of Browning and Colbert, and claims 17, 19, and 38 over Ethington in view of Browning and Spencer are reversed. A new ground of rejection of claims 1-7, 13-28, and 34-38 has been entered.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 C.F.R. § 41.50(b) provides

Appeal 2007-1827
Application 10/001,324

"[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

REVERSED, 37 C.F.R. § 41.50(b)

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